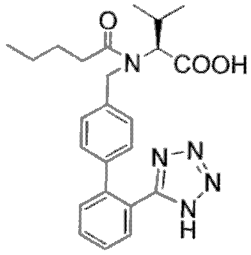
Exhibit D

Research and development report of Valsartan (SC-1141)

Molecular Structure of Valsartan:



Exact Mass: 435.23

1. Project target

Optimization of the process of crude product and the purification of the final API with the objective to improve the total yield of the Valsartan and solve the safety problem for quench process.

2. Specification of the Valsartan

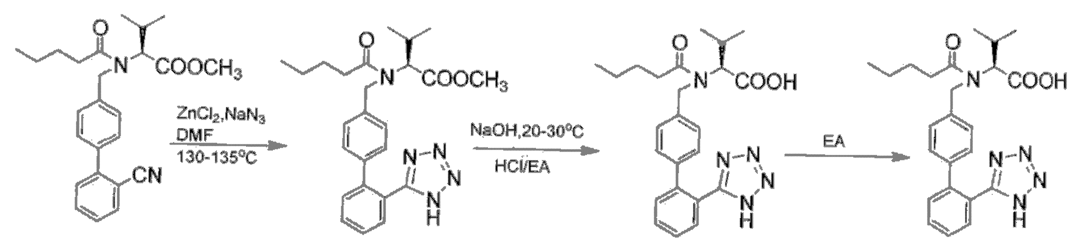
(1) Specification of crude Valsartan (SC-1141-A)

[illegible]		[illegible]
Appearance		White crystal solid, and no visible contaminant
Identification		By FT-IR: The spectrum of the sample is concordant with that of the reference standard
Loss		≤3.0%
Assay(HPLC)		≥80.0% (Anhydrous and solvent-free substance)
Specific rotation		17.0- 21.5
D-valsartan		≤5.0%
HPLC purity		≥98.0%
Impurities(HPLC)	Other unknown impurities	≤0.5%
	Total impurities	≤2.0%

(2) Specification of final API (SC-1141)

[illegible]		[illegible]
Appearance		White crystal solid, and no visible contaminant
Identification		By FT-IR: The spectrum of the sample is concordant with that of the reference standard
Loss		≤2.0%
Assay(HPLC)		98.0- 102.0% (Anhydrous and solvent-free substance)
Specific rotation		17.0- 21.5
D-valsartan		≤1.0%
Impurities(HPLC)	Other unknown impurities	≤0.1%
	Total impurities	≤0.3%
Residual Solvents (GC)	Ethyl acetate	≤0.5%

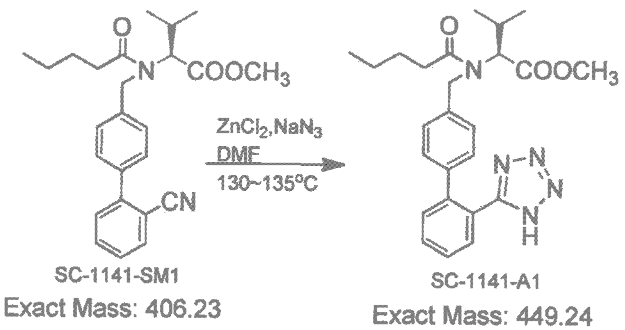
3. ROS of Valsartan



Exact Mass: 406.23 SC-1141-SM1 | Exact Mass: 449.24 SC-1141-A1 | Exact Mass: 435.23 SC-1141-A | Exact Mass: 435.23 SC-1141

4. R&D of the process of Valsartan

4.1. Process of SC-1141-A1



4.1.1 Problems in the original process

TEA HCl/Toluene/NaN_3 was used in the original process and the reaction time is too long (40h). There are a lot of starting material remained in the reaction system (40.0-50.0% starting material remained). The recovered SM1 from the reaction mixture contained a lot of chiral impurity. Also, there are safety issues for the quench process of the NaN_3.

4.1.2 Process improvement plan

(1) The amount of solvent used, the equivalent of reagents, reaction temperature, and reaction time were optimized in this step. We found that using excess amount of TEA salt and NaN_3 could improve the conversion rate from 60.0% to 90.0%, but the overall material cost will be higher. The details are shown below:

(a) Optimization of the mount of solvent and temperature

Table 1 optimization of the solvent and the temperature

Research and development report of Valsartan (SC-1141)

Date/ book	Batch NO.	Materials				IPC	Note
		SM1 g.	NaN_3 eq.	Et_3NHCl eq.	Sol. v.		
2010/09/29 415	SC-1141-A-415-032	2.5	1.9	2.2	Toluene 6v	90 - 95°C, 20h A1 55.9% Int. 40%	
2010/09/29 415	SC-1141-A-415-033	2.5	1.9	2.2	DMF 6v	90 - 95°C, 20h A1 28.9% Int. 36.3%	
2010/10/11 405	SC-1141-A-405-041	2.5	1.9	2.2	NMP 6v	90- 95°C, 20h A1 17% Int 71.2% 130- 135°C, 40h Reaction is very disorder	
2010/10/11 415	SC-1141-A-415-038	2.5	1.9	2.2	Xylene 6v	130- 135°C, 14h A1 36.5% Int. 48.2% 130- 135°C, 20h A1 50.6% Int.29.1%	

2010/10/1 2 405	SC-1141-A-405-0 40	2.5	1.9	2.2	Toluene+H_2O 12v (1:1) TBAC(20%mol)	85- 90°C (reflux, 20h (added 1V, No TBAC) A1: 10.37%, Int: 88.6% 85- 90°C(reflux), 40h (Added H_2O 5V, Added TBAC) A1 16.9%, Int: 81.5%	A lot of foaming appeared in the reaction
2010/10/1 4 405	SC-1141-A-405-0 42	2.5	1.9	2.2	Dioxane 6v	95- 100°C, 20h A1 34.6%, Int. 63.5% 44h A1 39.4%, Int. 58.1% 68h A1 60.7%, Int. 32.1% 82h A1 62.3%, Int. 28.7%	
2010/10/1 9 405	SC-1141-GY-011-012	2.5	1.9	2.2	Toluene (6v) NMP (1v)	90- 95°C, 20h A1 30.7%, Int. 66.4%	

(b) Equivalent of SM1 and NaN_3 used in the reaction and reaction temperature study

Table 2 Optimization of equivalent of SM1 and NaN3 and reaction temperature

Date/ book	Batch NO.	Materials				IPC	Note
		SM1 g.	NaN_3 eq.	Et_3NHCl eq.	Sol. v.		
2010/10/1 4 011	SC-1141-GY-011-002	2.5	3.8	2.2	Toluene 6v	90- 95°C, 20h A1 58.9%, Int. 31.6% 44h A1 70.3%, Int. 18.0% 96h A1 76.8%, Int. 8.0%	After 96h, more impurities are appeared
2010/10/1 4 011	SC-1141-GY-011-003	2.5	1.9	4.4	Toluene 6v	90- 95°C, 20h A1 48.9%, Int. 43% 44h A1 61.4%, Int. 26.3% 96h A1 63.1%, Int. 25.3%	

2010/10/18 011	SC-1141-GY-011-009	2.5	3.8	4.4	Toluene 6v	90- 95°C, 20h A1 82.9%, Int. 10.8% 44h A1 86.1%, Int. 2.4%	After 44h, more impurities are appeared
2010/10/18 011	SC-1141-GY-011-0011	2.5	5.7	6.6	Toluene 6v	90- 95°C, 20h A1 73.1%, Int. 17.7% 44h A1 77.0%, Int. 0.4%	After 44h, more impurities appeared
2010/10/20 011	SC-1141-GY-011-0013	2.5	2.9	3.3	Toluene 6v	90- 95°C, 20h A173.9%, Int. 21.5%	

(c) Optimization of the reaction time

Table 3 Optimization of the reaction time

Date/ book	Batch NO.	Materials				IPC	Note
		SM1 g.	NaN_3 eq.	Et_3NHCl eq.	Sol. v.		

2010/10/25 011	SC-1141-GY-011-014	2.5	1.9	2.2	Toluene 6v	90- 95°C, 20h A1 58.8% Int.38.1% 44h A1 77.2% Int.15.6% 92h A1 76.8% Int.8%	(1) magnetic stirring (2) After 92h, Imp. raised, But the conversion rate did not increased than 44h.

(2) The other catalyst systems were also used in this reaction and the system from Huahai($ZnCl_2$/DMF/NaN_3) is the best conditions. The results shown below:

Table 4 Optimization of catalyst systems

Date/ book	Batch NO.	Materials				IPC	Note
		SM1 g.	NaN_3 eq.	Cat. eq.	Sol. v.		
2010/09/25 415	SC-1141-A-415-027	2.5	1.9	NH_4Cl 2.2	Toluene 6v	90- 95°C, 20h, TLC No reaction	The section of reagent equivalent was quoted from literature
2010/09/27 415	SC-1141-A-415-029	2.5	1.9	NH_4Cl 2.2	DMF 6v	130- 135°C, 20h A1 17.6%, Int. 47.9%	

2010/09/28 415	SC-1141-A-415-031	2.5	1.9	$ZnCl_2$ 2.2	DMF 6v	130- 135°C, 6h A1 14.0%, Int. 78.9% 130- 135°C, 20h A1 30.8%, Int. 50.4% 130- 135°C, 40h A1 40.6%, Int. 25.7%	Mechanical stirring was used
2010/09/28 415	SC-1141-A-415-031	2.5	1.9	$ZnCl_2$ 2.2	Toluene 6v	90- 95°C, 20h A1<2% Int. 91.6%	It is very thickness in the bottle. And it is hard to stirring
2010/09/29 415	SC-1141-A-415-033	2.5	1.9	Et_3NHCl 2.2	DMF 6v	90- 95°C, 20h A1 28.9% Int. 36.3%	
2010/09/29 415	SC-1141-A-415-032	2.5	1.9	Et_3NHCl 2.2	Toluene 6v	90- 95°C, 20h A1 55.9% Int. 40.0%	
2010/10/26 011	SC-1141-GY-011-017	2.5	1.9	Et_3NHCl 2.2 TBAI 0.05	Toluene 6v	90- 95°C, 20h A1 57.1% Int. 40.5%	
2010/10/27 011	SC-1141-GY-011-019	2.5	1.9	Pyridine/ p-toluenesulfonic acid 2.2	Toluene 6v	90- 95°C, 20h No reaction	
2010/10/28 011	SC-1141-GY-011-020	2.5	1.9	Anhydrous $ZnCl_2$ 2.2	DMF 6v	90- 95°C, 20h A1 35.3% Int. 52.0%	
2010/10/29 011	SC-1141-GY-011-021	2.5	1.9	ZnS 2.2	DMF 6v	90- 95°C, 20h A1 67.2% Int. 27.4%	Hydrolysis of A1 was observed

2010/11/02 011	SC-1141-GY-011-028	2.5	1.5	Anhydrous $ZnCl_2$ 3.0	DMF 1v	130- 135°C, 20h A1 77.0% Int. 4.1%	From Huahai
2010/11/01 011	SC-1141-GY-011-025	2.5	1.9	Fe_2O_3 2.2	DMF 6v	130- 135°C, 20h A1 2.81% Int. 51.9%	Hydrolysis of A1 was observed
2010/11/01 011	SC-1141-GY-011-024	2.5	1.9	SiCl4 2.2	ACN 6v	80- 83°C, 20h Int.57.3%	A lot of SM1 was remained
2010/11/01 011	SC-1141-GY-011-026	2.5	1.9	Et_3NHCl 2.2	N-Methyli midazole 6v	130- 135°C, 20h No A1 was observed in the reaction mixture	

(3) Try to hydrolyze the SM1 first, and then react with NaN_3 to increase conversation rate and reduce isomer. But the conversion rate of ring formation at acid condition is lower than before, so this propose is fail. The results shown below:

Table 5 Tetrazole Reaction of Hydrolysis Acid of SM1

Date/ book	Batch NO.	Materials				IPC	Note
		SM1 g.	NaN_3 eq.	Et_3NHCl eq.	Sol. v.		
2010/10/1 2 415	SC-1141-A-415-0 39	2.5	1.9	2.2	Toluene 6v	90- 95°C, 20h A1 33.4% Int.53.7%	
2010/10/1 8 011	SC-1141-GY-011-007	2.5	1.9	2.2	H_2O	95- 100°C, 20h No reaction, a lot of SM1 remained.	

2010/11/03 011	SC-1141-GY-011-029	2.5	1.5	Anhydrous $ZnCl_2$ 3.0	DMF 1v	130- 135°C, 20h A1 77.9%	The isomer has no difference between this batch with material

(4) $ZnCl_2$/DMF/NaN_3 system provided by Huahai, work up at 80-100°C and filtered out the unreacted NaN_3 has safety issues; also there are some products lost during the filtration process. In order to resolve the safety issue, we tried to using the $NaNO_2$ to quench the process, the results are as follows:

Table 6 Optimization of Post-processing of $ZnCl_2$ Process

Date/ book	Batch NO.	Materials				IPC	Note
		SM1 g.	NaN_3 eq.	$ZnCl_2$ eq.	Sol. v.		

2010/11/29 010	SC-1141-ZJ-010-020	10.0	3.0	1.5 H_2O (2.0eq)	DMF 1.5v	130 - 135°C, 20h A1 68.0% API 23.7% Int. 2.0% Stereo isomer match the specification Crude yield: 74.0%	Post-processing process: (1) Add toluene(5v) and 10%$NaNO_2$ solution, Temp at 20- 30°C. Slowly add HCl, Adjust pH to 1-2, NaN_3 was confirmed to be quenched completely, layered, the organic phase is hydrolyzed by alkali. (2) Adjust pH=1- 2, filter the product. (3) EA used for crystallization of crude product.

2010/12/07 011	SC-1141-GY-011-067	50.0	3.0	1.5	DMF 1.5v	130- 135°C, 20h A1 73.0% API 18.9% Int. 3.3%	EA use for crystallization of crude product, the Yield is 70.0%, The yield of re-crystallization by EA is 60.0% (relative to the SM1), Content of stereoisomer within the specifications of the final product.

4.1.3 Process Stability Study

$ZnCl_2/DMF/NaN_3$ stress tests study

Table 7: $ZnCl_2$ and other Zn catalyst – stress test study

Date/ book	Batch NO.	Materials				IPC	Note
		SM1 g.	NaN_3 eq.	Cat. eq.	Sol. v.		
2010/11/17 011	SC-1141-GY-011-041	2.5	3.0	ZnO 1.5	DMF 1v	130- 135°C, 20h No reaction. Partial SM1 is hydrolyzed	Using ZnO as catalyst since $ZnCl_2$ contained some ZnO

2010/11/18 011	SC-1141-GY-011-043	2.5	3.0	$ZnCl_2$ 1.5 H_2O 2.0	DMF 1v	130- 135°C, 20h A1 68.8% API 22.2% Some SM1 hydrolyzed	The hydrolyzed product to form the Valsartan increased, there are no change for the other impurities
2010/11/17 011	SC-1141-ZJ-010-016	2.5	3.0	$ZnCl_2$ 1.5	DMF 1v	140- 145°C, 20h A1 57.3% API 28.1% 26h A1 53.5% API 30.4%	Stress test of temperature 140- 145°C. The degree of hydrolysis of product is increase, continue reaction, the impurities became complex.
2010/12/10 011	SC-1141-GY-011-070	2.5	3.0	$ZnCl_2$ 1.5	DMF 1v	130- 135°C, 20h A1 72.6% API 16.6% Int. 3%	Stop stirring

4.1.4 Optimized process

(1)Equivalent of SM used in the process

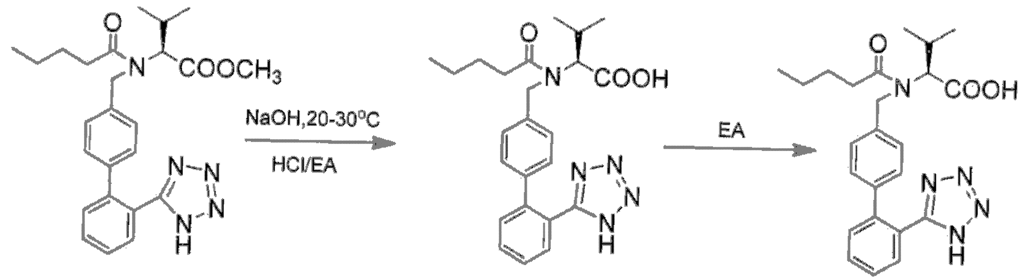
Compound	Mw	Amount	Moles	Eq.	Source	Purity

SM1	406.52	26.0g	0.064mol	1.00	Prepared in Huahai	≥95.0%
NaN_3	65.01	12.4g	0.191mol	3.00	domestic supplier	≥95.0%
$ZnCl_2$	136.30	13.0g	0.095mol	1.50	Prepared in Huahai	≥95.0%
DMF	N/A	39mL	N/A	1.5v	domestic supplier	≥95.0%
$NaNO_2$	N/A	13.0g	N/A	N/A	domestic supplier	≥95.0%
MTBE	N/A	65mL	N/A	N/A	domestic supplier	≥95.0%

(2)Operation procedure

1.	Add SM1 (toluene content less than 1.0%) 26 g to the 3 necked RBF, analyzed the water content
2.	Add 39 mL DMF
3.	Add 12.4 g NaN3
4.	Add 13.0 g of ZnCl2
5.	Heat the RBF to 130-135 °C
6.	Stir for 20 hour while maintain the temperature between 130-135 °C
7.	IPC1: SM1≤5.0%. If not, continue the sampling and testing every hour until the IPC limit is reached
8.	Cool the reaction mixture to 20-30°C
9.	Add 65mL MTBE
10.	Add 9.0% $NaNO_2$ solution(13.0g$NaNO_2$ dissolved into 130mLH_2O)
11.	Further cooled the reaction mixture to 0- 10°C
12.	Slowly add 140 mL 3N HCl solution to adjust the pH to 1-2 (caution: heat and gas formation)
13.	Stir the reaction mixture for 1 hour and maintain the temperature between 0-10 °C
14.	IPC1 control, the KI testing strip does not turn to blue color
15.	All the reaction mixture to settle for 10 min
16.	Separated away the aqueous phase, wash the organic phase with 26 mL of saturated NaCl solution
17.	Reserve the organic phase and continue for further process

4.2 Preparation of SC-1141-A (Valsartan)



SC-1141-A1 Exact Mass: 449.24

SC-1141-A Exact Mass: 435.23

SC-1141 Exact Mass: 435.23

4.2.1 The issues of original process

The stereoisomer content of the original process reaction mixture was high, about 8.0-10.0%. Also, the usage of base KOH was about 8 equivalent. Also, it has the viscosity problem for the crystallization reaction mixture with EtOAc.

4.2.2 The improvement plan to address about issues

Screening different base, acid for hydrolysis, optimization of equivalent of reagent selected for the hydrolysis conditions, including the reactant equivalent, reaction temperature and final crystallization conditions. Furthermore, in consideration of minimization of the stereoisomer content and control the cost, the NaOH will be selected for the hydrolysis process

Table 8 Optimize the hydrolysis conditions

Date/ book	Batch NO.	Materials			IPC	Note
		A1 g.	Cat. eq.	Sol. v.		
2010/11/18 011	SC-1141-GY-011-039	5.0	LiOH 2.0	Tol. 10v H_2O 10v	40- 45°C, 2h Stereoisomer: 4.8% Partial A1 was un-reacted	Stereoisomer: 2.9%
2010/11/18 011	SC-1141-GY-011-046	5.0	LiOH 2.5	Tol. 10v H_2O 10v	40- 45°C, 3h Stereoisomer: 6.8%	
2010/11/19 011	SC-1141-GY-011-045	5.0	LiOH 3.0	Tol. 10v H_2O 10v	40- 45°C, 3h Stereoisomer: 6.7%	
2010/11/19 011	SC-1141-GY-011-044	5.0	LiOH 2.0	Tol. 10v H_2O. 10v	20- 25°C, 18h Stereoisomer: 5.7%	Amount of stereoisomer was lower, lower temperature could help reduce the formation of Stereoisomer
2010/11/23 011	SC-1141-GY-011-048	5.0	LiOH 2.0	Tol. 10v H_2O 10v	0- 5°C, 60h Stereoisomer: 4.9%	Stereoisomer: 3.5%

2010/11/22 011	SC-1141-GY-011-0 47	5.0	K_2CO_3 2.5	H_2O 10v	80- 85°C, 60h Stereoisomer: 12.6%	Stereoisomer: 3.54% Stereoisomer content increased
2010/11/24 011	SC-1141-GY-011-0 51	5.0	$CaCl_2$ (10.0) NaOH (2.0)	IPA/H_2O(7:3) 10v	20- 25°C, 48h Most of the material A1 was not hydrolyzed	
2010/11/25 011	SC-1141-GY-011-0 52	5.0	HCl 8.0	IPA /H_2O(5:1) 10v	80- 85°C, 20h Most of the A1 was not hydrolyzed, an unknown impurity was formed	
2010/11/25 011	SC-1141-GY-011-0 53	5.0	ZnS 2.5	DMF/H_2O(10:1) 10 v	130- 135°C, 20h Most of the A1 was not hydrolyzed, more impurities was found	
2010/11/25 011	SC-1141-GY-011-0 54	5.0	H2SO4 5.0	DMF/H_2O(3:2) 10 v	80- 85°C, 72h 95- 100°C	
2010/11/30 011	SC-1141-GY-011-0 57	2.0	NaOH 2.0	H_2O/Tol.	-10 to 0°C,72h A: 75.9% A1: 20.7%	
2010/11/30 011	SC-1141-GY-011-0 58	3.0	LiOH 3.0	H_2O/Tol.	0-5°C,72h A: 90.2% A1: 1.2% Stereoisomer: 4.0%	

2010/11/3 0 011	SC-1141-GY-011-059	2.0	LiOH 2.0	H_2O/THF	20- 25 °C,60h A: 71.2% A1: 19.4%	
2010/12/0 1 011	SC-1141-GY-011-060	6.0	3N HCl 6.0	H_2O	80- 85 °C,4h A: 58.5% A1: 21.3% Amide hydrolyzed byproduct: 10.0%	
2010/12/0 1 011	SC-1141-GY-011-063	6.0	3N HCl 6.0	H_2O/dixane	80- 85 °C,4h A: 56.4% · A1: 30.5% Amide hydrolyzed byproduct: 4.9%	
2010/12/0 1 011	SC-1141-GY-011-062	6.0	3N HCl 6.0	H_2O/dixane	60- 65 °C,20h A: 54.6% A1: 34.1% Amide hydrolyzed byproduct: 2.8% 60- 65oC,48h A: 70.6% A1: 10.2% Amide hydrolyzed byproduct: 11.2%	
2010/12/0 6 011	SC-1141-GY-011-065	3.0	LiOH 3.0	H_2O/Acetone	-10 to 0 °C,24h A: 82.6% A1: 11.4% 72h A: 96.8% A1: 0.2%	

Table 9 Optimization of crystallization process

Date/ book	Batch NO.	Materials			Yield	Note
		A g.	T °C	Sol. v.		

2010/12/08 415	SC-1141-A-415-04 1	5	5°C	7V EA	Yield: 79.3%	Viscous but could be stirred
2010/12/09 415	SC-1141-A-415-04 2	5	5°C	9V EA	Yield: 74.3%	Viscous but could be stirred
2010/12/10 415	SC-1141-A-415-04 3	5	10°C	7V EA	Yield: 72.1%	Not viscous, stirred easily
2010/12/10 415	SC-1141-A-415-04 4	5	-10°C	7V EA	Yield: 80.6%	Viscous but could be stirred
2010/12/10 415	SC-1141-A-415-04 5	5	-15°C	7V EA	Yield: 82.7%	Viscous, difficult to stir

4.2.3 Optimized process

(1)Ratio of reagents used in the process

Compound	Mw	Amount	Moles	Eq.	Source	Purity
A1	449.55	28.8g	0.064mol	1.00	prepared in house	N/A
NaOH	40.00	7.7g	0.192mol	3.00	domestic supplier	≥95.0%
6N HCl	N/A	40mL	N/A	N/A	prepared in house	≥95.0%
EA	N/A	580mL	N/A	N/A	domestic supplier	≥95.0%

MTBE	N/A	65mL	N/A	N/A	domestic supplier	≥95.0%
Anhydrous MgSO4	N/A	13.0g	N/A	N/A	domestic supplier	≥95.0%

(2)Process description

1.	Add A1 organic phase to the 3 neck round bottom flask (RBF)
2.	Add 4.6% aqueous NaOH (7.7 g of NaOH dissolved into 150 mL water)
3.	Stir for 15 min, while maintain the temperature between 20-30 °C
4.	Settle for 30 min. and maintain the temperature between 20-30 °C
5.	Separate the aqueous phases and combine the rag layer to the aqueous phases
6.	Add aqueous phase to the 3 neck RBF,
7.	Add MTBE 65 mL to the RBF
8.	Stir for 15 min. and maintain the temperature between 20-30 °C
9.	All the reaction mixture to settle for 30 min. and maintain the temperature between 20-30 °C
10.	Separate the aqueous phases and combine the rag layer to the organic phases
11.	Wash the organic phase with 26 ml 4.6% NaOH solution.
12.	Combine the aqueous phase, discard the organic phase
13.	Add the aqueous phase to a clean 3 necked RBF
14.	Stir for 24 hours and maintain the temperature between 20-25 °C
15.	In process control, test the remaining A1 to A1≤0.5%(if not, continue the reaction extra hour and test the remaining A1, repeat the process until the A1≤0.5%
16.	Slowly adding the 6N HCl 40 mL to the reaction and maintain the temperature between 20-25 °C
17.	Add EA 160 mL to the reaction mixture
18.	Stir for 15 min. and maintain the temperature between 20-30 °C
19.	All the reaction mixture to settle for 30 min. and maintain the temperature between 20-30 °C
20.	Separated out the aqueous phase, and washed the aqueous phase with 100 mL EA once

21.	Combine the organic phase
22.	Add anhydrous MgSO4 13.0 g to the organic phase
23.	Stir for the 30 min maintain the temperature between 20-30 °C
24.	Filter out the MgSO4
25.	Rotovap the filtrate at 40-45 °C, vacuum at -0.098Mpa, Obtained the dried Valsartan 26.5 g, external assay, 85.0-90.0%, yield is about 80.0-85.0%
26.	Re-crystallization of the dry Valsartan using 185 mL of EA at the following condition, dissolved at 40-48 °C, crystallize the -5 °C to 0 °C. Filtered out the solid
27.	Dry the wet solid at (40-45 °C), obtained the crude valsartan 23.0 g, external standard assay showed 85.0-90.0%, Yield is about 70.0-75.0%
28.	Re-crystallize the crude valsartan using 185 ML EA at the condition of (40-48 °C dissolve, -5 to 0 °C crystallization)
29.	Dry the product Valsartan at (40-45 °C), obtained the product 17.9g, external assay show the content is 97.0- 100.0%, Yield 60.0-65.0%

5 Process verification with 3 lab batches to study the process stability

Date/ book	Batch NO.	Materials				IPC	Note
		SM1 g.	NaN_3 eq.	$ZnCl_2$ eq.	DMF. v.		
2010/12/30 011	SC-1141-GY-011-0 82	25.0	3.0	1.5	1.5	Yield for crude Valsatan: 62.5% Purity of the crude Valsartan 99.02% Final product purity: 99.73%	Stereoisomer in the crude: 1.27% Stereoisomer in the final product: 0.43%
2010/12/31 011	SC-1141-GY-011-0 84	25.0	3.0	1.5	1.5	Yield for crude Valsatan: 65.7% Purity of the crude valsartan: 99.02% Final product purity: 99.80%	Stereoisomer in the crude: 1.06% Stereoisomer in the final product: 0.31%

2010/12/31 011	SC-1141-GY-011-0 88	25.0	3.0	1.5	1.5	Yield for crude Valsatan: 64.9% Purity of the crude valsartan: 98.89% Final product purity: 99.73%	Stereoisomer in the crude: 2.36% Stereoisomer in the final product: 0.56%

6 Future improvement

（1） The synthesis process of crude valsartan and the purification process including the solvent system need to be further optimized at the pilot scale.

Shanghai SynCore Technologies, Inc.

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